

Certificate of Analysis

Product Name: D-panthenol
INCI Name: D-panthenol, pantolactone
Batch Number: Check product package
Exp Date: JANUARY 2029

Analytical Tests	Specifications	Results
Appearance (Visual)	Clear thick liquid	Clear thick liquid
Color (Visual)	Colorless - slightly yellow	Colorless
Identity (HPLC & Rotation) (Visual)	Corresponds	Corresponds
Specific Rotation (589nm, 20° C, c=5) (Polarimetry)	+29.5 to +32.0°	30.4°
Assay, D-Panthenol (Titration)	≥98%	98.0%
Sulfated ash (Gravimetric Analysis)	≤0.1%	Corresponds
Heavy Metals Colorimetric (Visual)	≤10 ppm	Corresponds
Free Amines as Aminopropanol (Titration)	≤1.0%	0.8%
Residual Solvents - Dichloromethane (Gas Chromatography)	≤50 ppm	Corresponds
Residual Solvents - Methanol (Gas Chromatography)	≤500 ppm	Corresponds
Total Aerobic Microbial Count	≤100 CFU/mL	<1 CFU/mL MAX

The above data were obtained using the test indicated and is subject to the deviation inherent in the test method. Results may vary under other test methods or conditions. This report is not to be signed. All data are as per our supplier.

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.



Total Combined Yeasts/Molds	≤100 CFU/mL	<1 CFU/mL MAX
Escherichia coli (Ph. Eur. 2.6.13)	Negative in 1mL	Negative in 1mL
Staphylococcus aureus (Ph. Eur. 2.6.13)	Negative in 1mL	Negative in 1mL
Pseudomonas aeruginosa (Ph. Eur. 2.6.13)	Negative in 1mL	Negative in 1mL
Candida albicans (Ph. Eur. 2.6.13)	Negative in 1mL	Negative in 1mL

“Certified in compliance with the terms of the US-Canada Organic Equivalency Arrangement. The above data was obtained using the test indicated and is subject to the deviation inherent in the test method. Results may vary under other test methods or conditions.

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